



## Process systems engineering for efficiently achieving circular economy

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## **Keynote Lectures**

set of desired target properties. Case studies including the design extraction/crystallization/reaction solvents, fragrance products, polymers, tailor-made fuel blends and lubricants will be presented to illustrate the application of the developed molecular and mixture design framework.

### **Process Systems Engineering for Efficiently Achieving Circular Economy**

Dr. Seyed Soheil Mansouri

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#### **Abstract.**

This talk will highlight the benefits of systems thinking and process systems engineering incorporated in decision-making to achieve circular economy. Process systems engineering is an interdisciplinary field within Chemical Engineering that its main objective is the development of systematic procedures based on mathematical models and computational techniques for the analysis, design, operation, control and optimization of process systems. The ability to systematically evaluate the opportunities to create revenue streams from waste streams helps in efficiently achieving a circular economy. Various examples and latest developments will be shown to demonstrate the importance of systematic evaluation and identification of these opportunities and planning for developing new processes to realize them.

### **Component based development of computer-aided tools for different applications**

Prof. Mario Eden

*Chemical Engineering Department, Auburn University, Auburn, USA*

#### **Abstract.**

Chemical engineering is in constant evolution and access to computational resources are changing the way chemical engineering